

Estimates of Capital Costs and Transportation Impacts

Transportation Impacts

The following tables summarize both total (build-out) projected traffic volumes and traffic volumes projected out the next 15 years. Build out estimates (Table 3) were developed by County staff while the 15-year projections (Table 4) are based on recent traffic studies provided with development applications in Dulles South.

Table 3	Estimate of Total Traffic Generation (Average Daily Trips [ADT])	
	Current Potential	CPAM Proposal
Density	Existing Zoning (0.33 and 1.0 dwelling unit/acre)	UBR 4.0 dwelling units/acre UF 3.0 dwelling units/acre
Residential Units	4,571	27,977
Employment-Retail	800 jobs	3,846,348 sq. ft.
Residential Traffic (ADT)	43,744	216,854
Employment Retail Traffic (ADT)	3,200	82,312
Total traffic (ADT)	46,944	299,166

Table 4	Projected Traffic Increase Between 2005 and 2020 (ADT) ¹	
	Road Links	Additional Traffic
	Route 50 west of Route 659 Relocated	56,649
	Route 50 West of Loudoun County Parkway	37,766
	Route 50 West of Pleasant Valley Road	28,324
	Route 50 at Route 860-Route 15	18,882
	Route 621 North of Route 860	18,882
	Route 659 Relocated South of Ryan Road	18,882
	Route 659 Relocated South of Braddock Road	9,441
	West Spine Road South of Braddock Road	9,441
	Tri-County Parkway South of Braddock Road	18,882
	West Spine Road West of Loudoun County Parkway	28,324
	Tall Cedars Parkway West of Loudoun County Parkway	18,882
	Route 50 North Collector Road West of West Spine Road	18,882
	Route 606 East of Loudoun County Parkway	18,882
	Loudoun County Parkway North of Route 606	9,441
	Braddock Road West of Route 659/West Spine Road	18,882

¹ Model assumes 251,772 total daily trips generated by the CPAM and that 188,829 of the daily trips are internal trips. Internal traffic is traffic that stays in the local community as would be the case in a mixed use development pattern with local services, retailers and employment sufficient to allow people to live and work in the same community.

Table 5	Projected Levels of Service (LOS)			
Road Links	Current Modeling		Add CPAM	
	Lanes	LOS	Lanes	LOS
Route 50 west of Route 659 Relocated - Lenah	4	D	6	F
Route 50 : Lenah – Route 15	2 ^T	E	2 ^T	F
Route 50 West of Loudoun County Parkway	6 ¹	D	6 ²	F
Route 50 West of Pleasant Valley Road	6 ¹	F	6 ²	F-
Route 621 North of Route 860 Relocated	2	C	4	C
Route 659 Relocated South of Ryan Road	4	B	4	D
Route 659 Relocated South of Braddock Road	4	B	4	C
Route 659 South of Braddock Road	2	E	4	C
Tri-County Parkway South of Braddock Road	4	B	4	C
West Spine Road West of Loudoun County Parkway	4	C	4	E
Tall Cedars Parkway West of Loudoun County Parkway	Not Coded		4	C
Route 50 North Collector Road West of West Spine Road	Not Coded		4	C
Route 606 East of Loudoun County Parkway	4	C	4	D
Loudoun County Parkway North of Route 606	4	E	6	E
Braddock Road West of Loudoun County Parkway	4	A	4	C

¹ Route 50 interchanges were not assumed to be constructed by 2020.

² Interchange construction to be evaluated as part of Route 50 Task Force.

^T Traffic calming area.

Levels of Service are measured as follows:

Level of Service A: Average total delay of less than 10 seconds per vehicle.

Level of Service B: Average total delay between 10 and 15 seconds per vehicle.

Level of Service C: Average total delay between 15 and 25 seconds per vehicle.

Level of Service D: Average total delay between 25 and 35 seconds per vehicle.

Level of Service E: Average total delay between 35 and 50 seconds per vehicle.

Level of Service F: Average total delay 50 seconds per vehicle. Insufficient gaps of suitable size to allow a side street demand to cross safely through or enter a major street traffic stream. LOS F may not always result in long queues but may result in adjustments to normal driver behavior.